

Remarks/Arguments

Claims 1-7, 9-11 and 14- 26 remain pending in the application. A Request for Continued Examination accompanies the amendment. Claims 2 and 24 have been cancelled. Reconsideration and reexamination are requested.

Turning first to the objections, claim 1 has been amended to change “it’s” to “its”. Claims 20, 22, 23, 25 and 26 have been amended to be consistent with the Examiner’s suggestions to provide antecedent basis and consistency. Accordingly, no new matter has been entered.

Claims 22-24 were also objected to for claiming a combination and a subcombination. Claim 24 has been cancelled. Claims 22-23 have been amended and it is believed that the outstanding objections have been rendered moot.

In addition, claims 1, 25 and 26 have been amended to recite “said components having a first gap therebetween” and that the sealing arrangement is “characterized in that the pressurizing surface or the supporting surface, or the pressurizing surface and the supporting surface, each form a lateral surface and the lateral surfaces each extend at least up to the area of the sealing ring projecting from the groove and into said first gap between said components.”

Support may be found in claim 2 and at page 5 lines 28-31 of the application which recite “[i]n this context, the areas with the form of a truncated cone preferably each extend at least up to the area of the sealing ring projecting from the associated receiving groove.” Attention is also directed to **FIG. 1a** and **2a** which disclose an exemplary embodiment wherein the sealing ring is a cone with lateral sides **7** and **8**. **FIGS. 2b** and **2c** illustrate an embodiment using a sealing ring having lateral surfaces of a truncated cone. Support for a gap between the components may be found at page 16 lines 6-9 which recite “[t]he width of gap **12** existing between components **4** and **6**, which move relative to each another, roughly corresponds to one-tenth of the thickness of the sealing ring, the width of gap **10** corresponding to roughly half the width of gap **12**.” Accordingly, no new matter has been added.

Claims 1, 14, 17, 25 and 26 have also been amended to recite a second gap as between the pressurizing surface and the pressurizing flank as distinguished from the first gap between the components. Accordingly, no new matter has been entered.

Claims 1-7, 9, 11 and 14-26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith (USP 2,360,731) in view of Gripe et al. (USP 3,926,444). In a telephone conversation with the Examiner it was learned that the reference to Gripe et al. was in error and that the Examiner intended to reference Bingham et al.(USP 6,305,265).

Smith appears to be directed at a wedge-shaped resilient sealing element **3** in a v-shaped groove **2** for sealing a piston and a cylinder wall. Smith does not disclose the seal being divided on one point on its circumference.

Bingham et al. appears to be directed at a sleeve seal assembly for a pump, wherein the seal assembly comprises a plurality of ring-shaped members. Reference numeral **64** in **FIG. 5**, is an s-shaped gap or slot to allow the seal member **56** to expand.

Further, Smith does not teach or suggest that the sealing arrangement is “characterized in that the pressurizing surface or the supporting surface, or the pressurizing surface and the supporting surface, each form a lateral surface and the lateral surfaces each extend at least up to the area of the sealing ring projecting from the groove and into said first gap between said components.” (See amended claim 1). Smith discloses a three sided sealing member with rounded corners, not lateral surfaces that extend at least up to the area of the sealing ring projecting from the groove and into said gap between said components. (See **FIG. 3-6** of Smith illustrates rounded corners and does not disclose lateral surfaces that extend at least up to the area of the sealing ring projecting from the groove and into the gap between said components). The extension of the lateral surfaces of the sealing ring at least up to the gap between the components may allow for greater contact area between the ring and the groove and improved sealing by the sealing ring.

Turning to Bingham et al., while the reference does disclose a divided seal (**FIG. 5**), it does not teach or suggest a sealing arrangement “wherein the pressure-side flank and the supporting flank of the groove are inclined relative to the surface of the sealing ring, each enclosing an angle of less than 90° towards said surface”...(See amended claim 1). Thus, Bingham et al. does not make up for the deficiencies of Smith.

The Examiner also rejected claim 10 under 35 U.S.C. 103(a) as being unpatentable over Smith (2,360,731) in view of Bingham et al. as applied to claims 1-7, 9, 11 and 14-26, and further in view of Flick (2,970,871). Smith and Bingham et al. are

discussed above. Flick discloses that seals may be made of leather, rubber, synthetic rubber or PTFE. However, Flick does not make up for the deficiencies of Smith and Bingham et al., taken alone or in combination.

Claims 1, 3-7, 9, 11 and 14-24 all depend directly or indirectly from amended claim 1 and are therefore believed to be similarly distinguished over the cited art.

As the feature of the pressurizing surface or the supporting surface, or the pressurizing surface and the supporting surface, each forming a lateral surface and the lateral surfaces each extending at least up to the area of the sealing ring projecting from the groove and into said first gap between said components is completely missing from the cited references, it is believed that the cited references taken alone or in combination do not support a rejection under 35 U.S.C. § 103.

In consideration of the amendments to the claims and the remarks hereinabove, Applicant respectfully submits that all claims currently pending in the application are believed to be in condition for allowance. Allowance at an early date is respectfully solicited.

In the event the Examiner deems personal contact is necessary, please contact the undersigned attorney at (603) 668-6560.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account No. 50-2121.

Respectfully submitted,

/Steven J. Grossman/

Steven J. Grossman

Reg. No.: 35,001

Grossman, Tucker, Perreault & Pfleger

55 South Commercial Street

Manchester, NH 03101

Tel.: (603) 668-6560